TWO NEW SPECIES OF PLEGA FROM MEXICO

(Neuroptera, Mantispidae)[1]

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The following descriptions are offered at this time in order that the names may be available for use in connection with biological studies to be published elsewhere.

Plega melitomae Linsley and MacSwain, new species

Coloration generally similar to other species in the genus but with less extensive dark areas. Head with heavily pigmented areas reduced, absent from clypeus and labrum, more lightly pigmented areas variable (figures 4, 5); antennae with scape pale, pedicel darker, flagellar segments one to fourteen pale, fifteen to twenty-six successively more piceous, segments twenty-seven to thirty-one luteus, remaining segments piceous. Thorax (figure 1) with pronotum pale, the usual maculations present but reduced except for the basal collar which is predominantly dark; pterothorax pale but with more extensive dark areas than pronotum. Wings hyaline; veins and setae predominantly pale; stigmatic area of both anterior and posterior wings with median pale area distinctly larger than either adjacent dark area. Legs pale, dark markings as in other species except inner surface of anterior femora which is marked similarly to outer surface. Abdomen dark, pleural area of first two segments yellow, remaining segments with a postero-dorsal yellow spot and a ventral longitudinal yellow line; tenth tergite of male yellow with a small mid-lateral dark area, of female dark with discal area yellow; sternites margined posteriorly with a narrow white band, discal area yellowish, yellow area expanded on first two segments; ovipositor of female yellow, longitudinal midlateral line dark.

Male: Length of body 11 mm., anterior wing 13 mm., posterior wing 10 mm. Head, especially ante- and post-clypeus, sparsely transversely rugulose; mid-frontal line, below coronal suture, scarcely evident: antennae (figure 13) slender, flagellum 40-segmented, evenly, gradually tapered from base to apex, segments cylindrical, apical segments longer than broad, slightly more than half the diameter of basal segments, basal segments as long as broad, setal pattern as illustrated (figure 13). Wings (figures 2, 3); anterior wing with eight longitudinal veins arising from radial sector, usually four from inner radial cell and four from outer radial cell, gradate veins ten; posterior

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wing with six longitudinal veins arising from radial sector, usually five from inner radial cell and one from outer radial cell, gradate veins seven. Legs with anterior coxae cylindrical, six times as long as broad, densely clothed with long, erect, fine hairs rather than coarse setae. Parameres (figure 9), only slightly arcuate, with three very short apical digitiform processes and a single longer subapical process.

Female: Length of body 8.5 mm., anterior wing 12 mm., posterior wing 9 mm. Structurally similar to male except for terminal abdominal segments; ovipositor S-shaped, about three-fourths as long as abdomen.

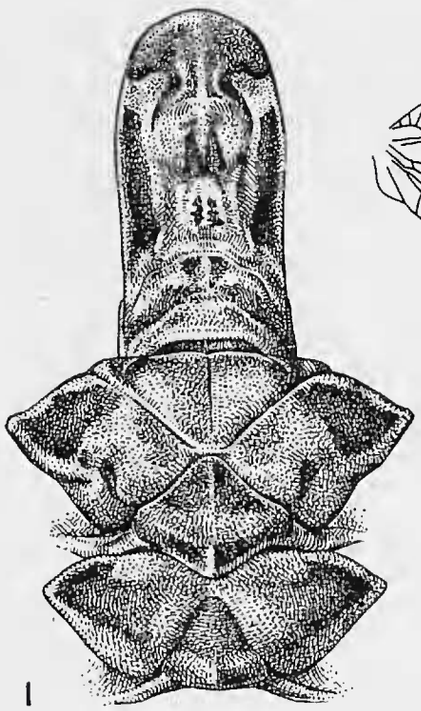
Holotype male (Calif. Acad. Sci., Ent.), allotype female (Calif. Acad. Sci., Ent.) and sixteen paratypes (9♂♂, 7♀♀), reared on various dates in July, 1953 from cells of *Melitoma euglossoides* Lepeletier and Serville collected at FRANCIA, 8 MILES NORTHEAST OF CINTALAPA, CHIAPAS, MEXICO, April 3, 1953, by R. C. Bechtel and E. I. Schlinger. Paratypes deposited in the collections of the California Academy of Sciences, the California Insect Survey, the Museum of Comparative Zoology and the Academy of Natural Sciences of Philadelphia.

This species is readily separable in both sexes from the other described *Plega* occurring in North and South America by the venation of the anterior and posterior wings. Other distinctive features are the shape and number of the antennal segments, the generally paler coloration with reduced pigmented areas, and the structure of the male parameres.

Plega fumosa Linsley and MacSwain, new species

Coloration generally dark. Head predominantly piceous with pale areas as illustrated (figure 6); antennae with scape more or less pale, pedicel and flagellum piceous. Thorax with dorsal surface of pronotum dark except for yellowish posteriorly and postero-laterally, lateral surfaces with posterior two-thirds yellowish, basal collar yellow; pterothorax black except for the anterior lateral arm of the second prescutum, the ventral margins of the anepisterna and the postero-ventral angles of the katepisterna, which are yellow. Wings subhyaline, veins and setae predominantly black; stigmatic area of both anterior and posterior wings with median pale area greatly reduced in relation to adjacent dark areas, medially placed in anterior wing, post-medially in posterior wing, in the latter case rarely absent. Legs pale with dark markings;

Plate I. *Plega melitomae* Linsley and MacSwain and *Plega fumosa* Linsley and MacSwain: Structural details.



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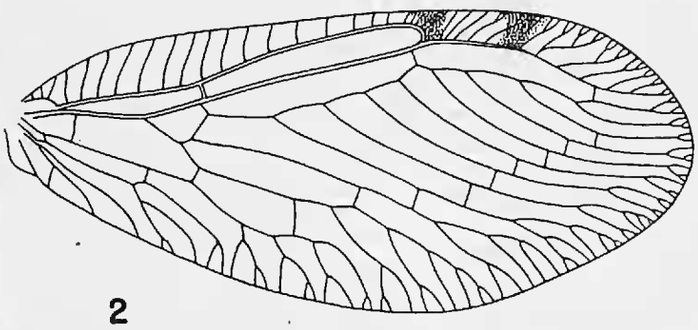

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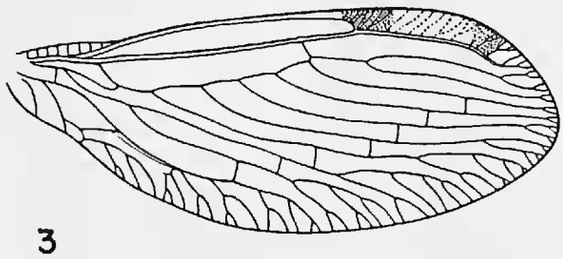

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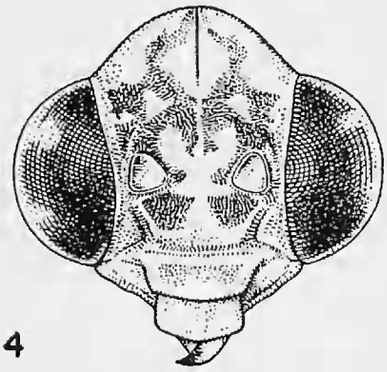

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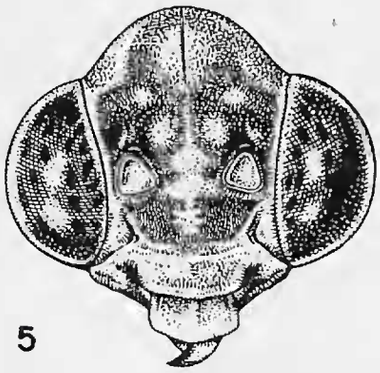

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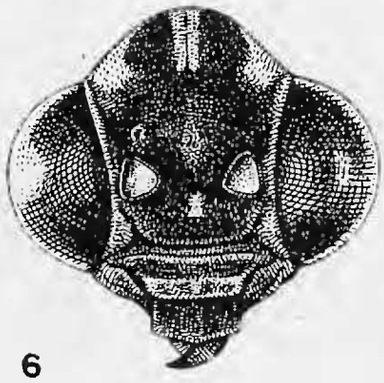
Plega melitomae



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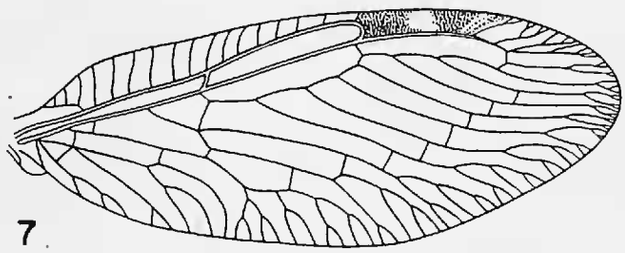

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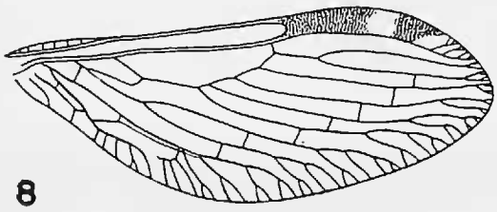

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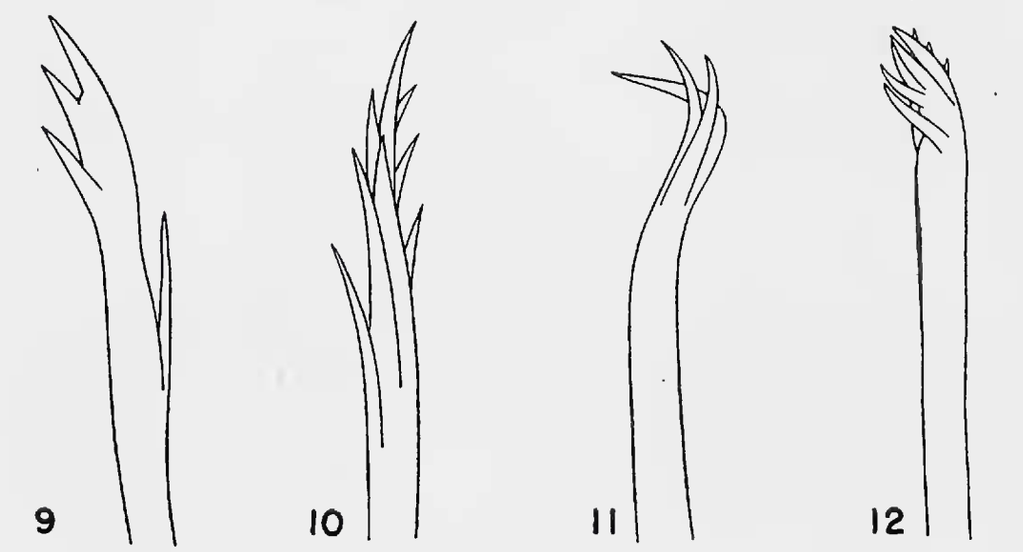
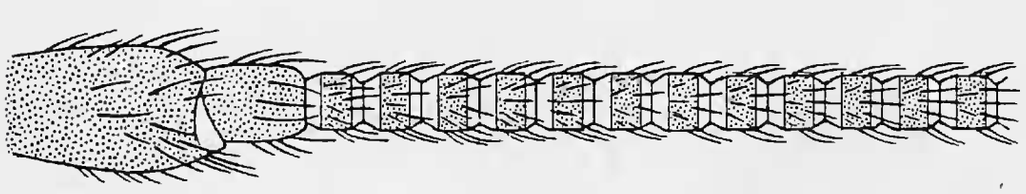
Plega fumosa

anterior coxae dark piceous; anterior femora with inner surface uniformly dark piceous. Abdomen dark; pleural area dark, margined above and below with yellow; tenth tergite of male yellow except basally, of female dark; sternites of male dark except for yellow midline of segments one to four, of female dark with slightly paler discal and postero-lateral angles of segments three to six; ovipositor of female piceous, somewhat paler at base and apex.

Male: Length of body 11 mm., anterior wing 11.5 mm., posterior wing 8.5 mm. Head, especially ante- and post-clypeus, distinctly transversely rugulose; mid-frontal line, below coronal suture, broadly impressed; antennae (figure 14) submoniliform, flagellum at least 52-segmented (incomplete in type and male paratypes), subapical segments as long as broad, basal





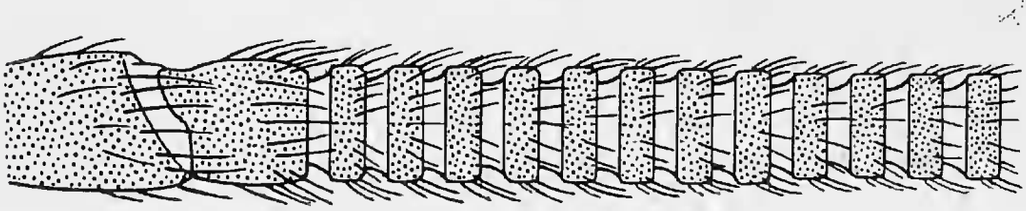


Plate II. *Plega* species: Male antennae and parameres.

segments twice as wide as long, setal pattern as illustrated. Wings (figures 7, 8); anterior wing with seven longitudinal veins arising from radial sector, four from inner radial cell, three from outer, gradate veins nine; posterior wing with five longitudinal veins arising from radial sector, four from inner radial cell, one from outer, gradate veins seven. Legs with anterior coxae cylindrical, six times as long as broad, densely clothed with moderately long erect fine hairs. Parameres (figure 10), only slightly arcuate, with eight elongate closely appressed digitiform processes with the apices divergent.

Female: Length of body (excluding ovipositor) 11 mm., anterior wing 13 mm., posterior wing 10 mm. Structurally similar to male except for terminal abdominal segments; antennae with fifty-nine flagellar segments, basal segments slightly less than twice as wide as long; ovipositor nearly straight, about as long as abdomen.

Holotype male (Calif. Acad. Sci., Ent.), allotype female (Calif. Acad. Sci., Ent.) and twenty-three paratypes (3♂♂, 20♀♀), from 11 MILES EAST OF APATZINGAN, MICHOACAN, MEXICO, August 20, 1954, (E. G. Linsley, J. W. MacSwain, and Ray F. Smith), beaten from an *Acacia*-like legume upon which three species of *Polistes* were nesting. Dissections of more than one hundred of these nests revealed no evidence of parasitic association, but this may not be significant since the wasps were rearing their first brood and the mantispids were freshly emerged.

Paratypes deposited in the collections of the California Academy of Sciences, the California Insect Survey, the Museum of Comparative Zoology and the Academy of Natural Sciences of Philadelphia.

This species is distinctive in both sexes by the dark pigmentation. The structure of the male parameres, while suggestive of that in *Plega banksi* Rehn, differs in number of digitiform processes which also have the apices divergent.

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